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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,840	07/23/2001	Scott Cumeralto	1725.123US02	3896

24113 7590 02/01/2007  
PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A.  
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MINNEAPOLIS, MN 55402-2100

EXAMINER
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TRAN, KHANH C

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/911,840	<b>Applicant(s)</b> CUMERALTO ET AL.	
	<b>Examiner</b> Khanh Tran	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/20/2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-18, 20-26 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15, 16, 22 and 23 is/are allowed.
- 6) ☒ Claim(s) 17, 18, 20, 21, 24-26 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07/23/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Request for Continued Examination (RCE) filed on 11/20/2006 has been entered. Claims 15-18, 20-26 and 28 are pending in this Office action.

### ***Response to Arguments***

2. Applicant's arguments filed on 11/20/2006 have been fully considered but they are not persuasive. See further explanation in the claim rejection below.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17-18, 20-21, 24-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Partyka U.S. Patent 6,188,715 B1 (previously cited).

Regarding claim 17, Partyka invention is directed to a radio transmission system including many radio transmitters that use frequency hopping carrier to intermittently transmit very short messages indicative of status of sensors associated with the transmitters, and to provide a synchronization means and method that allows a receiver

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to receive messages from all the frequency hopping transmitters; see column 4 lines 25-35.

In column 5 lines 20-45, Partyka discloses the receiver control logic includes a receiver timer to measure the elapsing time, and a plurality of memory registers to hold digital data indicative of (a) the time of the next transmission occurrence for each transmitter and (b) the frequency of the next transmission occurrence for each transmitter, wherein in operation, the control logic sequentially compares, the data content of the time registers with the data content of the timer and if the transmission is due from a transmitter, the control logic programs the frequency selective radio receiver circuit according to the data content in the frequency register associated with said transmitter. In light of the aforementioned teachings, the act of *"comparing the data content of the time registers 136 with the data content of the receiver timer 132 and if the transmission is due from a transmitter"* corresponds to the claimed *"determining a message arrival time for a first message to be transmitted by a specific end point module"*.

Partyka does not explicitly teach the claimed step of *"predicting, by the first reader, whether the first message will be successfully communicated"* as set forth in the claimed invention.

However, Partyka further teaches that the receiver attempts to decode the demodulated signal. One of ordinary skill in the art at the time the invention was made would have understood in order to predict whether the transmission is successfully communicated, one of the options is to attempt decoding the demodulated signal to

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determine if the demodulated signal is demodulated without any error; see further in column 13 lines 40-55.

Referring back to column 5 lines 20-45, after the step of attempting to decode the demodulated signal, the control logic modifies the content of the time register by a number representative of the time interval between the successive transmissions for said transmitter and modifies the content of the frequency register according to a predetermined algorithm for this transmitter.

Regarding claim 18, in column 17 lines 20-40, see also FIG. 5, the control logic 190 of the receiver comprises: (a) a plurality of ID memory registers 134 to hold digital data indicative of ID numbers for each transmitter that belongs to the system, (b) a plurality of time memory registers 136 to hold digital data indicative of the time of the next transmission occurrence for each respective transmitter, and (c) a plurality of frequency memory registers 138 to hold digital data indicative of the frequency of the next transmission occurrence for each respective transmitter.

Regarding claim 20, as recited in claim 17 rejection, the transmitters use frequency hopping carrier to intermittently transmit very short messages indicative of status of sensors associated with the transmitters. The receiver as shown in FIG. 2 includes a plurality of frequency memory registers 138 to hold digital data indicative of the frequency of the next transmission occurrence for each respective transmitter.

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Regarding claim 21, in column 17 lines 5-25, the receiver as shown in FIG. 2 further includes a multi-channel RSSI function is to assist the controller with obtaining initial synchronization and to reacquire synchronization with transmitters with whom the synchronization has been lost.

Regarding claim 24, claim is rejected on the same ground as for claim 17 because of similar scope. Furthermore, the receiver controller logic corresponds to the claimed controller

Regarding claim 25, the receiver as shown in FIG. 2 is a base unit.

Regarding claim 26, claim is rejected on the same ground as for claim 18 because of similar scope.

Regarding claim 28, claim is rejected on the same ground as for claim 21 because of similar scope.

***Allowable Subject Matter***

4. Claims 15-16 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

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Regarding claim 15, claim 15 is allowable over prior art of record because the cited references (e.g. Partyka U.S. Patent 6,188,715 B1) do not teach or suggest the uniquely distinct features "predicting, by the receiver, whether the future second transmission will be unsuccessful based on the first set of determined frequency hopping information" and "responding to a predicted unsuccessful future second transmission by adjusting the communicating between the first end point module and the receiver".

5. Claims 22-23 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 22, claim 22 is allowable over prior art of record because the cited references (e.g. Partyka U.S. Patent 6,188,715 B1) do not teach or suggest the uniquely distinct features "predict whether the future second transmission will be unsuccessful based on the first set of determined frequency hopping information" and "respond to a predicted unsuccessful future second transmission by adjusting the radio communications between the first end point module".

### **Conclusion**

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Tran whose telephone number is 571-272-3007. The examiner can normally be reached on Monday - Friday from 08:00 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCT

A handwritten signature in black ink, appearing to read 'Khanh Tran', with a stylized, cursive script.

01/24/2007  
Khanh Tran  
Primary Examiner